DISCLAIMER: These Standard Operating Procedures (SOP's) are for the exclusive use of Navy Public Works Center (PWC) Norfolk. They are promulgated as guidance for their NAVFAC Commands. If intended to be used by other activities, they must be tailored to each activity's particular requirements and must be reviewed/approved by the activity's safety professionals prior to use.

NAVY PUBLIC WORKS CENTER NORFOLK, VIRGINIA UTILITIES DEPARTMENT

STANDARD OPERATING PROCEDURE / JOB HAZARD ANALYSIS

TITLE SET UP AND SECURE BUCKET/AUGER TRUCK

PROCEDURE NUMBER

WC 624 HVE 001

DISTR: 601A

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SIGNED:		
_		(DATE)
APPROVED:		
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SAFETY PROFESSIONAL:		
		(DATE)
MANAGEMENT OFFICIAL:		
		(DATE)
DATE:	REVISION DATE:	

SET UP AND SECURE BUCKET/AUGER TRUCK

Purpose:

Position bucket and/or auger truck at job location.

Potential Energy Sources:

1. Possible voltage on primary or secondary neutral.

Tools and PPE:

Tools: bucket truck, auger truck, wheel chocks, truck grounding cable, orange or red flags, flashing yellow lights, cones, barrels, barricades, arrow board, portable lighting, and slow/stop paddle boards. PPE: hard hats, work gloves, safety shoes, orange safety vests, back brace if required by back injury prevention and control program, Nomex coveralls, Nomex hood, rubber gloves and sleeves, and safety harness. The class of rubber gloves and sleeves will depend on the exposure voltage as per the following: Class 0 - up to 1,000 volts, Class 1 - up to 7,500 volts, Class 2 - up to 17,000 volts, Class 3 - up to 26,500 volts, Class 4 - up to 36,000 volts.

References:

- 1. SOP# 600 HVE 12, Traffic Control Devices
- PWC Occupational Safety and Health Program Manual, PWCNORVAINST 5100.33E
- 3. Occupational Safety and Health Standards for General Industry (29 CFR PART 1910): Subpart I, Personnel Protective Equipment; Subpart R, Electrical Power Generation / Transmission / Distribution;
 - Subpart S, Electrical
- 4. NFPA 70 E, Approach Distances To Exposed Energized Electrical Conductors and Circuit Parts
- 5. ANSI C2-1987, National Electrical Safety Code
- 6. Electrical Transmission and Distribution Safety Manual, P-1060
- 7. The Lineman's and Cableman's Handbook, 5th ED

Procedures:

- 1. All personnel shall wear hard hats, work gloves, safety shoes, and orange safety vests during the set up and securing operations.
- 2. Control traffic when working in, or adjacent to, a road or parking lot. Refer to SOP# 600 HVE 12, Traffic Control Devices, for details.
- 3. Position bucket and/or auger truck and apply emergency brakes. Only a person with a current Virginia Commercial Drivers License can drive a bucket/auger truck. The truck driver will be directed by a flagman. Truck driver and flagman will be alert to truck blind spots, traffic, pedestrians, and any other obstacles.

SET UP AND SECURE BUCKET/AUGER TRUCK

- 4 Once bucket/auger truck is placed, the driver will activate the truck's emergency lights and engage the PTO(power take off) before exiting the truck.
- 5. Chock the truck's wheels.
- 6. Visually inspect the truck for damage or hydraulic leaks. Test the controls. A bucket/auger truck require a yearly weight test certification. A bucket truck requires a yearly electrical insulation resistance test. Check that the truck has current certifications.

- 7. Extend the truck's outriggers onto a stable surface or pads.
- 8. Ground the truck to the following: secondary or primary overhead circuit neutral, pole ground, screw anchor, screw rod, or any <u>grounded</u> structure nearby. The previous list is in order of preference.

Prior to attaching a ground onto a overhead primary or secondary neutral, test the neutral for possible voltage. If a primary neutral is going to be used, first test with a high voltage tester then, if no voltage is detected, test with a low voltage tester. If voltage is detected do not use the neutral to ground the truck. Use a shotgun stick to attach truck's ground wire onto the neutral.

If the truck ground is attached to a pole ground, a screw anchor, a screw rod, or a grounded structure, test the ground. The ground resistance should be no more than 5 OHMs.

When testing and placing truck ground onto primary neutral the personnel will wear Nomex coveralls, Nomex hood, rubber gloves and sleeves, safety glasses, hard hat, and safety shoes.

When operating a bucket truck to attach the truck ground to an overhead neutral the following safety rules will be followed.

- a) Only an authorized person, one with a current government license to operate an aerial lift, will operate the bucket.
- b) Do not use the bucket truck if winds exceed the truck manufacture's specified limit.
- c) Do not perform energized work in wet weather, unless an emergency.
- d) Personnel in bucket will wear a safety harness with a lanyard attached to the boom or bucket.
 - e) Do not exceed the bucket's weight limitations.
- f) Stand firmly on the floor of the bucket with both feet. Do not sit on the bucket's edge or use planks, ladders, or other such devices.

SET UP AND SECURE BUCKET/AUGER TRUCK

- 9. Place barricades around the perimeter of the work area.
- 10. Perform work assigned as per provided work orders, SOPs, and JHAs.
- 11. Remove work area barricades.
- 12. Remove truck grounds.
- 13. Retract outriggers.
- 14. Remove wheel chocks.
- 15. Truck driver will enter truck and disengage the PTO and release the emergency brake.
- 16. Move the truck out of traffic flow and park. The truck driver will be directed by a flagman. Truck driver and flagman will be alert to truck blind spots, traffic, pedestrians, and any other obstacles.
- 17. Turn off truck warning lights.

18. Remove all traffic control devices placed during set up.